

# PUBLIC HEALTH REPORTS

VOL. 53

APRIL 8, 1938

NO. 14

## DISABLING SICKNESS AMONG MALE INDUSTRIAL EMPLOYEES DURING THE FINAL QUARTER OF 1937 AND THE ENTIRE YEAR<sup>1</sup>

By WILLIAM M. GAFAFER, *Senior Statistician*, and ELIZABETH S. FRASIER, *Junior Statistician, United States Public Health Service*

The data presented are those of reporting industrial sick benefit organizations located principally in the New England, Middle Atlantic, and North Central States. The record covers the same 26 companies in 1937 as in 1936. The rates are based on the experience of male workers only and include only those disabilities of over one week's duration. A later report covering a larger number of organizations giving the sickness incidence rates and time-lost rates for the three years, 1935-1937, inclusive, will include the experience of female employees.

*The year 1937.*—For the year 1937 as a whole, the frequency of cases of sickness and nonindustrial injuries causing disability for 8 calendar days or longer in a group of 185,044 industrial employees was 99.7 cases per 1,000 men. This is the highest annual rate since 1929. It exceeded the rate for 1936 (90.9) by approximately 10 percent, and the rate for the 5 preceding years (87.6) by 14 percent. (See table 1.)

With the exception of tuberculosis of the respiratory system, all the subgroups of respiratory diseases in 1937 exceeded the rates for 1936 as well as those for the 5-year period under consideration. Tuberculosis of the respiratory system occurred at similar rates in 1937 and 1936.

The nonrespiratory diseases as a group also showed increases. Within this group of diseases an increase in the rates for diseases of the stomach except cancer, diarrhea and enteritis, appendicitis, diseases of the skin, infectious and parasitic diseases, and ill-defined and unknown causes appears to have taken place in 1937 and 1936 as compared with the 5-year period 1932-36.

*The fourth quarter of 1937.*—Among 187,891 men covered in the record for the fourth quarter of 1937, the rate, 84.7 cases per 1,000

<sup>1</sup> From the Division of Industrial Hygiene of the National Institute of Health, United States Public Health Service, Washington, D. C. The report for the third quarter and the first nine months of 1937 was published in the PUBLIC HEALTH REPORTS for January 14, 1938 (63: 37-39).

men, for all sickness and nonindustrial injuries was somewhat lower than that for the same quarter of 1936 (87.0 cases per 1,000 men).

The frequency of respiratory diseases in the fourth quarter of 1937 was 12 percent lower than in the final quarter of the preceding year. However, the rate for pneumonia (3.0 cases per 1,000) was 36 percent greater than that for the same quarter of 1936 (2.2 cases per 1,000).

Nonrespiratory diseases occurred at a slightly greater frequency than in the final quarter of 1936. With the exception of diseases of the stomach (cancer excepted), diarrhea and enteritis, appendicitis, diseases of the heart and arteries, and nephritis, and other genitourinary diseases, which showed greater frequency in the fourth quarter of 1937 than in the corresponding quarter of 1936, the rates for the nonrespiratory diseases in the fourth quarter were approximately the same or lower than the corresponding rates for the same period of 1936.

*The quarter-years of 1933-37, inclusive.*—The disability rates by quarter-years for the period 1933-37 are shown in table 2, and graphically in figure 1. It is apparent from figure 1A that there was an epidemic of respiratory diseases in the first quarter of 1937. Of interest is the gradually increasing trend of the rates for the respiratory diseases; with the exception of the peak in the first quarter of 1933 all succeeding corresponding peaks are on a gradually increasing trend. These phenomena are reflected in the graph representing the rates for all disabilities.

The time changes in the rates for nonrespiratory diseases and nonindustrial accidents, respectively, show approximately level trends. With respect to nonrespiratory diseases the lowest quarterly rate in each year appears to be in the fourth quarter, with no definite peaks at equally spaced intervals of time. The nonindustrial rates, on the other hand, show a definite peak generally in the third quarter of each year.

Figure 1B has been prepared to show for each of the 5 years the seasonal variation of the frequency of the total disabilities and the disabilities occasioned by the respiratory diseases. Both groups of graphs, with the epidemic of 1937 clearly in evidence, show the well-known general behavior of respiratory disease incidence.<sup>3</sup> No ordering of all of the years is possible because of the crossing and recrossing of the yearly curves. However, it is of interest to observe that 1933 is consistently below 1937 with respect to both total disabilities and the respiratory diseases.

Figure 1C shows the time changes of each of the 4 quarters for total disabilities and the respiratory diseases, respectively. As anticipated previously, in both groups of graphs there are indications of increasing

<sup>3</sup> Compare, Doull, J. A., Herman, N. B., and Gafafer, W. M.: Minor respiratory diseases in a selected adult group; prevalence, 1928-32, and clinical characteristics as observed in 1929-30. *Am. J. Hyg.*, 17: 536-561 (1933).

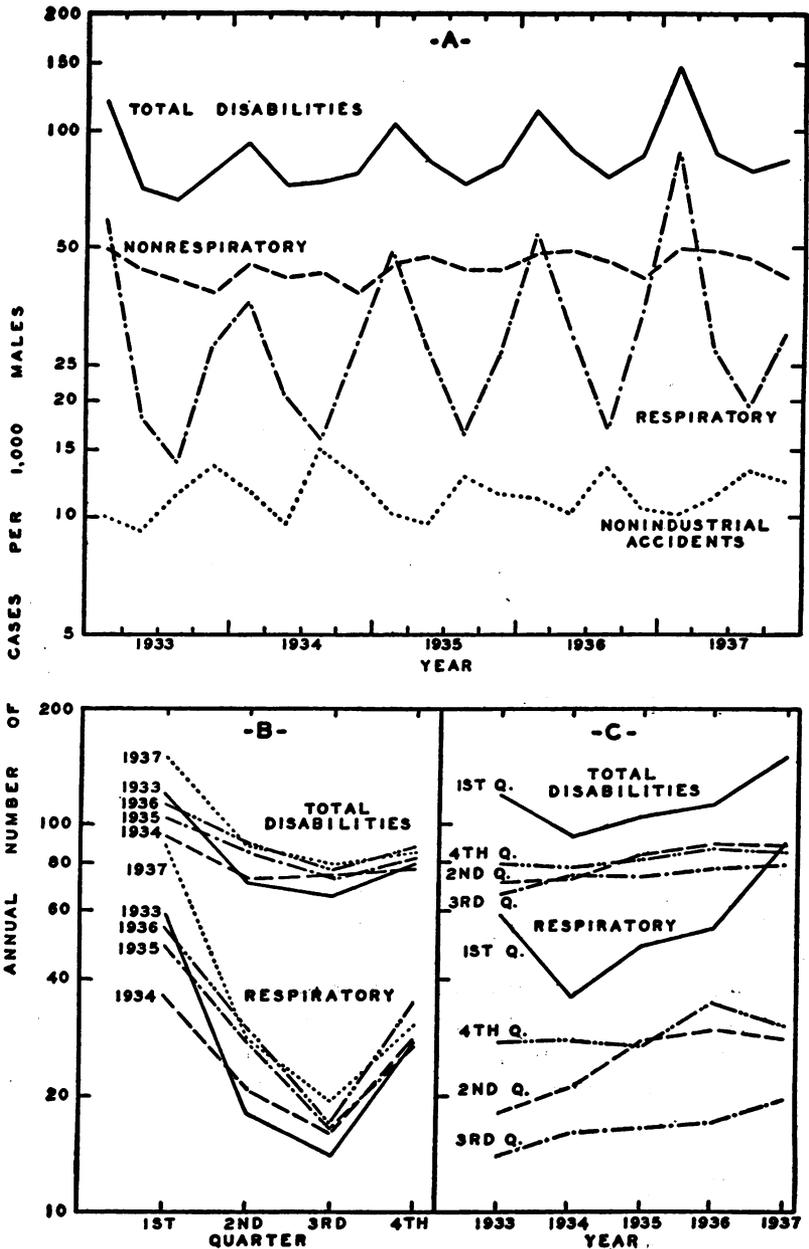


FIGURE 1.—Frequency (logarithmic) of disability lasting 8 calendar days or longer caused by respiratory diseases, nonrespiratory diseases, and nonindustrial accidents by quarter-year of onset, 1933-37; (A) quarterly variation from 1933 through 1937, (B) quarterly variation for each of the years 1933-37 with the years superimposed, and (C) variation from 1933 through 1937 with the quarters superimposed. (Male morbidity experience of industrial companies which reported their cases to the United States Public Health Service.)

trends of incidence with time, the first quarter in each instance being quite isolated and, with respect to position, above the remaining quarters. It will be observed that the 1937 epidemic of respiratory diseases was of sufficient magnitude to draw the graph of the respiratory diseases of the first quarter up, and over the graphs of the total disabilities for the second, third, and fourth quarters, respectively. Of interest also is the position of the graph of the respiratory diseases for the third quarter; this particular graph is isolated, shows an increasing trend with time and, with respect to position, is the lowest of all quarters.

TABLE 1.—Frequency of disability lasting 8 calendar days or longer in the fourth quarter of 1937 compared with the same quarter of 1936, and the year 1937 as compared with preceding years (male morbidity experience of industrial companies which reported their cases to the U. S. Public Health Service)<sup>1</sup>

Diseases and disease groups which caused disability. (Numbers in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1929)	Annual number of disabilities per 1,000 men in—				
	Fourth quarter of—		Full year of—		
	1937	1936	1937	1936	5 years 1932-36
Sickness and nonindustrial injuries <sup>2</sup> .....	84.7	87.0	99.7	90.9	87.6
Nonindustrial injuries.....	12.3	10.6	11.7	11.5	11.8
Sickness <sup>2</sup> .....	72.4	76.4	88.0	79.4	75.8
<b>Respiratory diseases.....</b>	<b>30.2</b>	<b>34.5</b>	<b>40.5</b>	<b>33.3</b>	<b>30.8</b>
Bronchitis, acute and chronic (106).....	4.4	5.0	4.9	4.9	3.7
Diseases of the pharynx and tonsils (115a).....	4.7	4.1	5.0	4.7	4.5
Influenza and grippe (11).....	11.5	15.7	20.1	15.0	15.0
Pneumonia, all forms (107-109).....	3.0	2.2	4.0	2.6	2.1
Tuberculosis of the respiratory system (23).....	.7	.7	.8	.8	.9
Other respiratory diseases (104, 105, 110-114).....	5.9	6.8	5.7	5.3	4.6
<b>Nonrespiratory diseases.....</b>	<b>42.2</b>	<b>41.9</b>	<b>47.5</b>	<b>46.1</b>	<b>45.0</b>
Diseases of the stomach, cancer excepted (117-118).....	4.1	3.5	4.0	3.7	3.6
Diarrhea and enteritis (120).....	1.1	.9	1.4	1.3	1.2
Appendicitis (121).....	4.0	3.6	4.5	4.2	3.8
Hernia (122a).....	1.4	1.5	1.6	1.7	1.6
Other digestive diseases (115b, 116, 122b-129).....	2.4	2.4	2.5	2.8	2.9
Rheumatic group, total.....	8.8	8.7	9.2	9.7	9.7
Rheumatism, acute and chronic (56, 57).....	3.3	3.6	4.0	4.2	4.5
Diseases of the organs of locomotion (156b).....	3.2	3.3	3.0	3.3	3.0
Neuralgia, neuritis, sciatica (87a).....	2.3	1.8	2.2	2.2	2.2
Neurasthenia and the like (part of 87b).....	1.0	1.0	1.1	1.1	1.0
Other diseases of the nervous system (78-85, part of 87b).....	1.0	1.0	1.0	1.1	1.3
Diseases of the heart and arteries and nephritis (90-93, 102, 130-132).....	3.9	3.4	4.1	3.7	3.8
Other genito-urinary diseases (133-138).....	2.3	2.1	2.3	2.3	2.4
Diseases of the skin (151-153).....	3.0	3.3	3.1	3.0	2.7
Infectious and parasitic diseases except influenza (1-10, 12-22, 24-33, 36-44).....	1.3	1.7	2.7	2.3	2.4
Ill-defined and unknown causes (200).....	2.0	3.2	3.2	2.9	2.2
All other diseases (45-55, 58-77, 88, 89, 100, 101, 103, 154-156a, 157, 162).....	5.9	5.6	6.8	6.3	6.4
<b>Average number of males covered in the record.....</b>	<b>187,891</b>	<b>167,298</b>	<b>185,044</b>	<b>157,159</b>	<b>146,574</b>
<b>Number of companies.....</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>-----</b>

<sup>1</sup> In 1937 and 1936 the same companies are included, the rates for the fourth quarters of the years 1932 to 1936 include 26 of these companies, which employed an average of approximately 80 percent of the 146,574 men representing the sample population for the 5-year average.

<sup>2</sup> Exclusive of disability from the venereal diseases and a few numerically unimportant causes of disability.

**TABLE 2.—Frequency of disability lasting 8 calendar days or longer by quarter-years, 1933-37, inclusive (male morbidity experience of industrial companies which reported their cases to the U. S. Public Health Service)**

Year and quarter in which disability began	Annual number of cases per 1,000 men				Average number of males covered
	Total, sickness and nonindustrial accidents	Respiratory diseases	Nonrespiratory diseases	Nonindustrial accidents	
<b>1933</b>					
First.....	118.2	58.7	49.4	10.1	134,788
Second.....	70.7	17.9	43.6	9.2	132,847
Third.....	66.3	14.0	40.8	11.5	149,657
Fourth.....	79.4	27.5	38.3	13.6	143,766
<b>1934</b>					
First.....	93.0	36.2	45.0	11.8	145,728
Second.....	72.8	20.9	42.3	9.6	158,873
Third.....	74.1	15.9	43.2	15.0	157,771
Fourth.....	78.3	27.7	37.8	12.8	153,194
<b>1935</b>					
First.....	104.0	48.6	45.2	10.2	138,234
Second.....	84.0	27.4	47.0	9.6	138,214
Third.....	73.5	16.6	44.1	12.8	140,627
Fourth.....	82.0	26.8	43.7	11.5	143,877
<b>1936</b>					
First.....	113.1	53.8	48.0	11.3	145,701
Second.....	89.0	29.7	49.0	10.3	150,248
Third.....	76.8	17.0	46.2	13.6	162,721
Fourth.....	87.0	34.5	41.9	10.6	167,298
<b>1937</b>					
First.....	148.1	88.5	49.4	10.2	173,617
Second.....	88.2	27.8	49.1	11.3	184,364
Third.....	79.4	19.4	46.7	13.3	188,327
Fourth.....	84.7	30.2	42.2	12.3	187,891

## VARIATIONS IN THE FORM AND SERVICES OF PUBLIC HEALTH ORGANIZATIONS <sup>1</sup>

By JOSEPH W. MOUNTIN, *Surgeon*, ANTHONY J. BOROWSKI, and HAZEL O'HARA,  
*United States Public Health Service*

Since a favorite defense of men and races is that self-preservation is the first law of life, one might logically assume the quest for health to be among the best organized of all earthly pursuits. We Americans do list public health among the first duties of state. In a way it is recognized that the term implies supervision by science and medicine over nature through the myriad units of the body politic, and it is rather widely, if somewhat vaguely, assumed that this is being done with what we are pleased to consider twentieth century enlightenment.

This generation has been host to a phenomenal development of techniques for controlling disease. The most spectacular, viewed through the change in death rates since the turn of the present century, are those which deal with the microorganisms. Our armory of means for dealing with even more elusive causes of disease is also expanding. One would expect full use of measures to combat diseases, the most

<sup>1</sup> From the Division of Public Health Methods, National Institute of Health. Study conducted in connection with the National Health Inventory.

potent of all forces for human destruction; yet public health activity, according to its best friends and severest critics, is far from being directed with the military precision worthy of the strength and strategy of the foe, and, in fact, is all too frequently but a lame and desultory substitute for a great offensive.

The United States Public Health Service has a series of data which, in the positive manner of statistics, back up the complaints of students of public health administration that activities in this field lack common direction, integration, and pattern. These data were gathered during the National Health Inventory conducted by the Public Health Service. They cover the health agencies, and thus a large fraction of the organized program for public health, of 94 counties.<sup>2</sup> These counties, most of which include large cities within their borders, contain approximately 25 percent of the population in the continental United States. It may be accepted that they represent a high average of public health development as compared with the country as a whole.

The indices used herein for showing variety in organization and dispersion of effort are the number of agencies, source and amount of financial support, composition of staff, and content of program. The data do not include items pertaining to hospitals and other facilities for care of the sick, material relief, water and sewerage systems, or scavenger services. They deal only with the assortment of agencies that would be named as representing the general set-up for improving health in these counties. The content and implications of a community health program are summarized by way of defining the problem toward which these agencies are directing their efforts.

Improvement of environment is now part and parcel of the public health program. Most commonly such program includes authority over the following activities: Purification of water; production, processing, and sale of foods; disposal of sewage and other wastes; and elimination of hazards in the home and places of employment. This work, when properly done, sums up to a large scale enterprise, not susceptible of organization on a small population base, and requires the knowledge and skill of an engineer. In its simplest form among small health departments it is set down as sanitary inspection and nuisance abatement.

The modern method for controlling communicable disease involves an intelligence service by which the diseases may be located promptly and an epidemiological service for tracing infection to its lair. Against a few diseases persons may be immunized; some communicable diseases are amenable to environmental control; prompt and adequate

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<sup>2</sup> Services encompassed by this discussion are those regulatory and promotional measures which commonly comprise the programs of health departments, of school medical units, and of voluntary organizations with similar interests. Medical care for low-income groups, operation of hospitals, and services in the interest of municipal cleanliness are specifically excluded.

treatment of sick individuals often is the measure chosen; or quarantine, though not especially effective, still may be the only procedure available. The program as a whole requires that practically every public health technique be brought into play, and for success these are dependent in large measure on citizen support and participation. These diseases are related inextricably to the daily coming and going of individuals, and consequently their control should not be undertaken by an official whose authority is limited to civil districts that have little or no relation to the economic or social groupings of the population.

While some of the acute communicable diseases have receded as causes of sickness and death, the chronic diseases have slipped up to the front. If they are to be curbed, they must be recognized early and their victims given proper care—services that entail the employment of physicians, nurses, and laboratory technicians, as well as the utilization of hospital and clinic facilities.

The imparting of hygienic principles, as carried on today, combines the knowledge and art of the physician, nurse, and teacher and the full employment of the innumerable channels for disseminating information. Programs may be developed for all the people, or special emphasis may be placed on the health of mothers, children, or persons employed in industry. Obviously this is no part-time job for a person unacquainted with methods for influencing human behavior.

In short, it takes a complex organization to battle intelligently and effectively for the health of a people against the microscopic organisms and other forces bent on their destruction. To protect itself fully, a unit of population must have the means to support such an organization and must be of sufficient size to justify the employment of a staff representing the required techniques, thus making economy possible in the operation of the many services. For simplification of administrative problems, the unit of population served by the health agencies should be a social, political, and economic entity.

Public health organization, as it actually exists through the length and breadth of the land, is a gerrymander of jurisdictions and a pot-pourri of health agencies with all degrees and conditions of income, autonomy, and the will to do something. Its very nature rather defies the regularities of statistical delineation; nevertheless the 2,500 and some odd agencies contributing to this thesis have been distributed through five tables according to their jurisdictions, resources, and types of activity. The term "agency" is used elastically in this discussion to run the entire gamut of public health staffs, from large corps of trained personnel down to lone individuals working away at being a health department. Consequently, the activities covered vary immensely. They include those smartly in step with the latest

scientific dictates and also the odd chores that comprise all the health work of some communities.

In table 1 the agencies are enumerated to show their strength in numbers without regard to the value of their separate contributions. A significant proportion of the figures represent the ex-officio health officer who steps into the role when chance demands it. This spare-time individual may tack up placards when measles or scarlet fever makes its rounds, or he may go over some evening and complain to a burgher that the neighbors find his backyard too odorous; but a consistent preventive campaign against disease is not within the scope of the local doctor or merchant or barber who takes time off occasionally for the job of health officer. In many instances "health officer" is but a title which some obliging individual consents to adopt so that the town charter may be fulfilled.

It will be noted in the same table that 1,037 of the agencies in the 94 counties reported on are nonofficial. Such organizations are a natural outgrowth of the assumption that public health is anybody's field, as indeed it is. If some dynamic woman gathers her friends about her for a crusade against a particular microbe or to promote some element of public hygiene, it would be churlish and without historical justification to gainsay her right to do so. This would be a meaner world if the instinct to alleviate distress had not flourished in the human heart through wars, plagues, and nature's upheavals. However, it is possible to give credit where credit is due and still to make the point that the public health set-up is inadequate, that the available efforts are not well marshaled, that for the most part each organization bites into the problem wherever its taste directs—in short, that from the standpoint of organization the set-up is behind the times. In earlier days individual good deeds comprised the major part of what was done for the common weal. The knowledge was less, and the means were home-made. A village woman carrying her household remedies across the commons exemplified in some respects what there was of public health work; the bucket brigade was the sum of fire-fighting activity. It is no reflection on those individuals who went to help out, nor on those who still go to help out, to recommend an efficient centralized organization to do in a more effective way and for many more people what is impossible for a friendly neighborhood to perform, no matter how good the intentions may be. But public health work has lagged behind. In many places it is still the bucket brigade, hardly aware of the new knowledge available and unequipped with the new weapons which changing times have developed.

**TABLE 1.**—*Distribution of agencies providing health services by counties in different population groups*

County population group	Number of counties	Total population	Number of agencies			Agencies per 100,000 population		
			Total	Official	Nonofficial	Total	Official	Nonofficial
All counties.....	94	33, 978, 479	2, 565	1, 528	1, 037	7. 5	4. 5	3. 0
Under 20,000.....	15	191, 274	94	82	12	49. 2	42. 9	6. 3
20,000-59,999.....	25	856, 580	353	269	84	41. 2	31. 4	9. 8
60,000-99,999.....	14	1, 020, 428	264	199	65	25. 9	19. 5	6. 4
100,000-249,999.....	13	2, 244, 347	402	280	122	17. 9	12. 5	5. 4
250,000-499,999.....	13	4, 919, 583	347	218	129	7. 0	4. 4	2. 6
500,000 and over.....	14	24, 746, 267	1, 105	480	625	4. 4	1. 9	2. 5

In these 94 counties the public health picture is made up of 2,565 centers of authority, a picture that might lend itself very well to the impressionistic style of treatment. If some standard unit were accepted—say the county—from which all the activities diverged, a unit to act as a clearing house for all offers of help from those who can get money or services together, then it stands to reason that a more logical ratio of effort to total problem could be established.

In the discussion that follows, the number of agencies is related to population units of 100,000, in order that there may be a common denominator. By this distribution it will be seen that the smaller counties are more generously supplied than are the larger. The group under 20,000 has 49 agencies per 100,000 population, while the counties of half a million or more have only 4.4. The official agencies are especially numerous in proportion to the population of small counties, but there is a drop to the low figure of 2 per 100,000 population in the very large counties. The agency rate depends to a great extent on the number of civil units in a county. County A with 16 villages and 14 townships may have many health departments, while County B with one metropolis and 380 square miles of countryside may have but two—one for the city and one for the remainder of the county.

The objection, of course, is not to the number of agencies but to the attendant scattering of resources and the overlapping and duplication of effort that must result from an aggregation of autonomous organizations that work without common direction. Table 2 suggests the extent of this overlapping and the variation in administrative arrangements.

**TABLE 2.—Distribution of health agencies with different primary interests according to the political unit which forms the base of organization**

Primary interest of sponsoring agency	Number of agencies	Number of agencies serving specified political units			
		County	City	Other minor civil divisions	Special districts
Official.....	1,528	139	305	481	603
General health.....	1,079	84	199	379	417
Education.....	351	10	78	100	163
Welfare.....	84	26	16	1	21
Other.....	34	19	12	1	2
Nonofficial.....	1,037	225	540	105	167
General health.....	170	68	60	30	14
Special health programs.....	153	78	66	2	7
Welfare.....	327	30	206	15	76
Nursing.....	53	15	30	4	4
Education and recreation.....	166	17	73	53	23
Other.....	108	19	105	1	43

Among official agencies, health departments are in the majority, and they are followed by a significant number of hygiene units operating under educational auspices. Welfare agencies concerned with health are not numerous, but in some communities the welfare department administers most of the health service. The group designated as having "other" primary interests includes departments of public works with minor responsibilities in health, or perhaps a separate establishment in the government directing a program especially concerned with malaria control, rodent extermination, or the like.

The largest number of voluntary agencies in this particular picture for 94 of the counties in the United States give welfare as of primary importance, but to some degree this represents lack of definition concerning objective in statements on the schedule. Groups engaged in material relief, child protection, family rehabilitation, and similar welfare activities are likely to carry some health service as a side issue. If a worker finds the head of a family too sick to hold a job, her immediate objective will be to get the condition diagnosed and treated and to set the family provider on his feet again.

Those voluntary agencies whose first concern is education and recreation include study clubs, parent-teacher associations, the Y. M. C. A., the Y. W. C. A., luncheon clubs, and similar organizations. Their interest in health may be expressed in activities among members, moral support of community programs, or money grants for specific services. Business concerns, life insurance companies, and industries also may contribute to community health either directly or indirectly through services rendered their beneficiaries and employees.

The nonofficial agencies having health as a primary interest most frequently focus their effort on general measures for maternal and child health. Among specific disorders picked out for attack by voluntary agencies, tuberculosis leads and is followed in order of frequency by behavior problems of children, cancer, heart disease, and orthopedic defects. Nursing agencies, though not the most numerous among voluntary groups, have as a rule substantial budgets and are most tangible in purpose. Health instruction and bedside care of the sick constitute their chief activities.

A large number listed as "other" are not subject to exact classification. Neighborhood clubs of every conceivable designation and purpose make up this group. Many of these clubs are negligible, and their contributions to the cause die a-borning. Such associations of individuals, however, even though they may never get beyond the passing of resolutions, symbolize a deep-seated interest in the public health movement, and they often serve to keep burning the fires all but quenched in those political upheavals which occur among the ones entrusted officially with the public health work.

The jurisdictions most frequently served by official agencies are districts of special creation or those expressing varying combinations of pre-existing minor civil divisions (see table 2). Other frameworks for official health organizations are the towns, townships, villages, and similar lesser political units of the county. County government as an instrument of health administration was reported by 139 agencies. In few instances is this an over-all type of organization, as the local governments perform certain of the functions pertaining to health. Voluntary agencies, on the other hand, are organized most frequently on a city and, next, on a county basis. This point is especially significant, since it shows that people free of political restrictions tend to use population groupings that are best suited for the purpose.

As to the importance of the agencies, budget is probably the best single index. True, some may spend large sums on rather fruitless undertakings, while others accomplish much more through intelligent use of meager resources. These exceptional cases, however, do not invalidate comparisons made on a budgetary basis when large numbers of agencies are involved. The proportion of their budgets which agencies obtain from different sources reveals further the measure to which they may draw on their sponsors for financial support. In table 3 the agencies are compared on the basis of their budgets.

It will be seen from this table that public agencies as a group obtain practically their entire budget through appropriation of tax funds. Those operating under educational auspices received in the form of contributions an amount equivalent to about 1 percent of their combined funds. A somewhat larger amount from the same source

was reported by the group having a general health interest, but the sum is of little moment in proportion to the total budget. The aggregate of fees listed for sponsoring agencies having interests designated as general health or "other," though small, perhaps deserves mention, since such fees represent in the main special taxes imposed for inspections, issuance of licenses, and similar functions of health and sanitation divisions in local governments.

TABLE 3.—*Distribution of income of health agencies with different primary interests according to source of income*

Primary interest of sponsoring agency	Number of agencies reporting income figures	Total income	Amount of income from specified sources		
			Taxation	Contributions	Fees for services
<b>Official</b> .....	1,330	\$34,671,979	\$34,337,637	\$122,402	\$211,850
General health.....	936	25,493,222	25,208,187	88,300	191,735
Education.....	312	2,331,973	2,304,752	24,969	2,252
Welfare.....	51	1,646,510	1,642,459	3,000	1,051
Other.....	31	5,210,274	5,187,239	6,223	16,812
<b>Nonofficial</b> .....	611	12,522,002	1,148,044	7,159,825	4,214,133
General health.....	113	2,436,655	78,981	1,165,300	1,195,374
Special health problems.....	125	2,236,604	238,976	1,713,315	286,313
Welfare.....	157	3,057,322	307,181	2,149,063	601,078
Nursing.....	51	3,262,420	303,705	1,581,961	1,376,754
Education and recreation.....	88	216,761	1,277	86,427	129,057
Other.....	77	1,312,240	222,924	463,759	625,557

The part taken by voluntary agencies in public health programs is strikingly illustrated in table 3. Their budgets in the aggregate represent slightly more than 25 percent of all funds expended for public health purposes included under this study. Some private agencies that render specific services on behalf of the local governments receive fairly substantial amounts from that source. Aside from such public grants, the two sources of funds for the nonofficial agencies are contributions and fees, the former by far the larger. Contributions rather than fees are typical of welfare agencies and those concerned with special disease problems. A nursing service, on the other hand, appears to be about 50 percent self-sustaining.

A point of special significance, not included in the table, is the failure of 12 percent of the official and 42 percent of the voluntary agencies to report any expenditure. In part this may have been an oversight, but the schedules for the majority of those failing to report expenditures do not indicate that any program entailing the spending of appreciable sums of money is being carried out. It is true, however, that unpaid workers may be rendering some service which does not show in table 3. These services may be as definite as the giving of actual bedside care, or as intangible as the shaping of public opinion, and are of course very difficult to measure.

Another point worthy of special note is that the average budget of the 611 voluntary agencies reporting funds is approximately \$20,000,

and the average for the 1,330 governmental agencies reporting operating budgets is only slightly higher, or \$26,000. However, if the median be used to describe income, it is found to have a much lower value for governmental than for nongovernmental agencies. This is due to the fact that a large number of governmental agencies are represented by lone health officers who serve on a part-time basis for small salaries.

The voluntary agencies in the aggregate make substantial contributions to public health programs; but, like the official agencies, their efforts may be misdirected and their programs frequently lack substantial content because of inadequate financial backing. Thus the public health set-up, the principal organization for applying those measures which science and medicine have laboriously accumulated, is made up to a large degree of agencies that are inadequately financed, that depend on contributions for their livelihood, or that must receive fees in order to keep going. Table 3, then, throws the harsh light of "How much?" on the situation, and reveals a loose-jointed organization, often weak where a mere count of its members would indicate that it is strongest.

The character of a staff and its size are commonly accepted to be the most objective measure of public health organization. Full-time service especially is taken to be the best indication of professional interest by the staff. If these criteria are conceded to be valid, then one may say that public health organization in the counties studied, as depicted by table 4, presents a rather sad commentary on the devotion of organized society to human health. A situation wherein more than one-third of the agencies have budgets of less than \$500 is considerably of a poser to those concerned about raising the level of health. This is true inadequate national defense, and it is against a foe that is not just meditating on coming over within the next 100 years but is actually within the borders. Furthermore, among this one-third are about 500 agencies that failed to report any funds whatsoever. Only one full-time person is employed by the entire group of those in the \$500 or less budget class; and judging from the salary possible under such a budget, this person is not likely to possess high technical qualifications.

Nurses are listed by approximately one-half of the agencies whose budgets exceed \$1,000. As one might expect, physicians are not found with any degree of regularity among those organizations with small budgets; in fact, they are seldom represented where budgets fall below \$10,000. The ratio of one or more physicians per agency is attained only when annual sums in excess of \$50,000 are at the command of the organization. Dentists likewise are associated with the larger units. Well over 90 percent of the full-time physicians and dentists are concentrated in about 18 percent of the agencies, and all

of these have \$10,000 or more in available funds. Sanitary inspectors are also found among the better financed agencies in particular.

**TABLE 4.**—*Number of full-time employees with specified qualifications in health agencies having different total annual budgets*

Value of budget		Number of agencies	Number of employees					
Range	Aggregate		Total	Physicians	Nurses	Inspectors	Dentists	Others
Total.....	\$29, 335, 245	1, 861	12, 579	869	5, 799	1, 159	136	4, 616
Less than \$500.....	96, 204	652	1	0	0	0	0	1
\$500-\$999.....	102, 239	146	18	0	6	1	0	11
\$1,000-\$1,999.....	288, 964	193	133	1	77	0	0	65
\$2,000-\$4,999.....	735, 242	230	242	12	157	7	3	63
\$5,000-\$9,999.....	895, 995	129	361	27	192	14	8	120
\$10,000-\$49,999.....	4, 425, 340	206	1, 749	86	925	79	29	630
\$50,000-\$99,999.....	2, 060, 862	31	847	46	319	69	28	385
\$100,000 and over.....	20, 730, 399	52	9, 073	678	4, 017	973	67	3, 338
Unknown or none.....	.....	222	155	19	106	16	1	13

The affairs of smaller organizations employing full-time persons are usually carried on by an individual included under "others" in table 4. Lay secretaries make up most of this group for the voluntary agencies, and sanitarians for the official agencies. The number of clerks and technicians increases with the size of the budget, although the budget as a rule attains considerable size before the technicians are added. Table 4, therefore, shows most succinctly that the blueprint of public health organization is likely to be much more impressive than the performance.

The next distribution of the data, table 5, shows the fields of activity in which agencies of the several types busy themselves. These data do not differentiate on the basis of intensity, nor the specific items pursued by the several agencies, but simply show the number of organizations accepting responsibility for particular jobs.

Some of the agencies failed to report programs. A limited number of these no doubt are doing a fairly substantial piece of work and simply overlooked this part of the schedule. Others may have felt that their efforts were desultory in character—valuable, but not the kind of thing to show up on a schedule. For the great majority, however, failure to report service may be accepted as signifying little or no activity. There were 109 official and 595 nonofficial agencies that failed to mention what they were doing—or 7 percent and over 50 percent, respectively. The governmental group that failed to record service includes the many health departments in name only referred to in table 1, departments manned by some obliging citizen who will take time off from his regular occupation to quarantine an infectious person or remove the carcass of a dog that failed to observe traffic regulations. The voluntary group that omitted accounts of service represent various associations that were set up to do something,

but for one reason or another never got around to doing it. In many instances, however, the nonofficial agencies that failed to report service programs made money grants for services to be administered under other auspices.

The first impression given by table 5 is that there is no particular pattern in the distribution of responsibility for services, and in a large measure this is true. A fairly general low rate of participation by agencies in the several types of service clearly shows that very few organizations embrace even the limited field of public health work encompassed by the list of activities in table 5.

TABLE 5.—Number and percentage of official and nonofficial health agencies providing selected types of service

Type of service	Agencies of specified type <sup>1</sup> reporting services					
	All agencies		Official agencies		Nonofficial agencies	
	Number	Percent	Number	Percent	Number	Percent
Communicable disease control.....	1, 139	61. 2	1, 043	73. 5	96	21. 7
Maternal and child hygiene.....	493	26. 5	294	20. 7	199	45. 0
Bed care.....	219	11. 8	106	7. 5	113	25. 6
Laboratory service.....	242	13. 0	218	15. 4	24	5. 4
Sanitary inspection.....	549	29. 5	537	37. 8	12	2. 7
Health education.....	596	32. 0	357	25. 2	239	54. 1
Immunization.....	515	27. 7	421	29. 7	94	21. 3
School medical service.....	540	29. 0	487	34. 3	53	12. 0
Tuberculosis service.....	306	16. 4	209	14. 7	97	21. 9
Venereal disease service.....	149	8. 0	118	8. 3	31	7. 0
Dental service.....	394	21. 2	269	19. 0	125	28. 3
Orthopedic service.....	149	8. 0	89	6. 3	60	13. 6
Psychiatric service.....	138	7. 4	87	6. 1	51	11. 5
Eye service.....	280	15. 0	187	13. 2	93	21. 0
Other services.....	269	14. 5	161	11. 3	108	24. 4

<sup>1</sup> The total agencies reporting services numbered 1,861, of which 1,419 were official and 442 were nonofficial.

Communicable disease control leads as an official responsibility. This activity, certainly of prime importance, is one of the traditional regulatory measures long since accepted as a public function. Some nonofficial agencies participate in this field, notably nursing organizations that contract with governments to take care of those ill from these diseases. Immunization, that more youthful measure for the control of communicable disease, is carried on to a more nearly equal extent by official and nonofficial agencies.

For measures of sanitation, another traditional public health service, only 38 percent of the official agencies accept responsibility, and less than 3 percent of the nonofficial. Next in order of frequency is school medical service, and here the health and educational authorities participate to about the same degree. Of the voluntary agencies, 12 percent, mostly those concerned with nursing, direct their energies in this channel. Favorite outlets for the energies of voluntary groups are health education and maternal and child hygiene. Laboratory service is not listed with any high degree of frequency by agencies of

either type, but it is an official undertaking much more than a non-official. It is characteristic of the metropolitan health departments that have set up a program rich in content. Bedside nursing care of the sick is almost exclusively a function of the visiting nurse organizations. The few official departments reporting such service usually give only demonstrations, or render care for particular conditions having some degree of communicability.

From the standpoint of frequency in listing, programs of medical service, such as care of the tuberculous, dentistry, orthopedics, and psychiatry, are more commonly the activities of private agencies than of the tax-supported group covered by this study. Measures for the control of venereal diseases constitute the sole exception to this generalization, but the difference is not great, and neither of the groups shows a particularly creditable performance. Eye and dental services are relatively frequent in programs of both official and non-official agencies. Services listed as "other" are, with few exceptions, clinical in character. They pertain to cancer, heart disease, and similar conditions not encompassed by the program of a large number of organizations. Here, too, it may be observed that the development is primarily one by voluntary agencies.

These tabular arrangements of agencies working for the public health can but imperfectly suggest the haphazard way in which much of the effort is applied to the total problem. Cross-currents of purpose do not obviously obstruct each other in statistical delineations. The numerical expression of agencies at work leads one to presuppose accomplishment when actually these agencies may only provide shelter for individuals who do nothing in particular except carry the banner of public health; and the layers upon layers of organization are not made manifest by arraying the various agencies under neat headings. The subject is better adapted to discussion than to statistical analysis. Each jurisdiction has a high degree of individuality, and throughout the country many a variant is played upon the main theme of combating disease and raising the level of health.

The public health problem involves 130 million individuals. It is complex and subtle and always with us; yet the organization to meet it is made up in considerable measure of pasteboard agencies, of rudimentary health departments without positive programs, and of free lance associations. They wage common cause, but often indifferently, or naively, or confusedly, or without regard to the sum total of the effort.

For example, a selected rural county shows a really respectable amount of organization on paper. One of its proud citizens might conceivably boast, "Why, for our 25,000 people we have 30 health departments." They have, and 30 health departments for 25,000 people might well lead the casual observer to assume that no disease

has a chance there, that the forces to defy sickness and disability are in the saddle and riding full tilt to the attack.

The true situation, however, is somewhat less gallant. The one sizable town of 6,153 inhabitants has a health department which spent \$500 in its health activities for the year covered by the schedule. It is manned by a local physician who devotes a part of his time to the job, his work being listed as control of communicable disease, laboratory service, and sanitary inspection. Just how much in these three services he accomplishes in the time that he can take from his regular practice is a matter for conjecture.

There are 5 village health departments and 24 township health departments in this county. The top expenditure for a single department was \$353. Ten reported no expenditures. Communicable disease control and sanitary inspections constituted the bulk of the work. Eleven of these health departments, according to their schedules, are apparently innocent of duties. The personnel for the thirty amounts to 28, including 8 part-time medical men, no nurses, and 20 part-time workers of various other types. Most of the latter would come under the heading of sanitary inspectors with more or less definite jobs in the field of municipal housekeeping.

The Public Health Association and the American Red Cross operate in the county at large, but their combined budgets amount to less than \$1,000. The Red Cross also spends around \$600 on its work in the county seat. The absence of any sizable nonofficial agencies indicates that the public in general is not aware to any great degree of the health battlefield. The total expenditures reported by the official and nonofficial agencies amount to some \$4,030. This sum, even to an innocent bystander in the field of public health, would seem hardly adequate as an annual budget for the public health problems of 25,000 people.

There are many variants up and down the scale from this health set-up. In a county predominantly of urban character, for example, the schedules testify to a more extensive conception of social responsibility for the health of a people. An interesting point in this connection is that the per capita spendable money income does not vary greatly between the two counties; for the urban county it is a little over \$500, and for the rural about the same amount under \$500. Expenditures for public health in the urban county amount to somewhat over a million dollars for about 365,000 people. These expenditures, when reduced to a per capita base, show a figure of nearly three dollars for the urban as contrasted with an outlay of fifteen cents in the rural county.

The industrial system is a dominant factor in the difference in public health structures between these two counties. The inhabitants of the

urban county are gathered into many centers of population, the largest of which is about 115,000. This mass living increases the significance of each individual situation in the total health problem, magnifies the importance of each family that, through circumstances often not of its own making, is forced to live in an unhealthful environment.

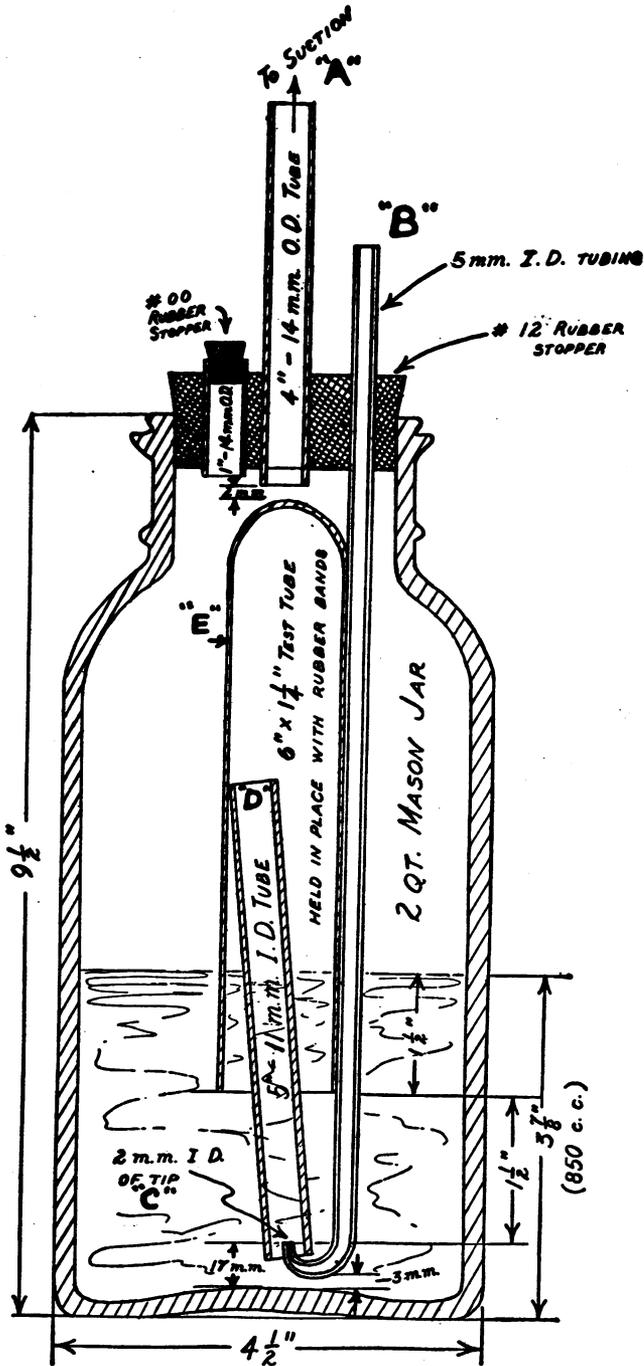
The health departments as a whole throughout this county report programs richer in content than do those of the first county. Among themselves, however, they show considerable variation. One of the smaller departments, with a budget of somewhat over \$9,000, reports that communicable disease control and school medical care constitute its program. Another with a budget of about \$3,500 reports 15 categories of activity, including psychiatric, orthopedic, and eye services, and efforts toward the control of tuberculosis and venereal disease.

The many centers of population in this county also serve to create a greater number of private agencies contributing to the public health work. The greater and more obvious the problem, the more private citizens will take an interest in it. And, of course, the greater the population, the more persons there are with energies to spare for something other than their personal existence. In the chief city of this county there are 17 such agencies supplementing the work of the health department. They include a nursing association with a budget of over \$40,000, a luncheon club with a fund of \$113, an order of nuns who give bedside care; in fact, they show a wide range of origins, purposes, and budgets.

The worth of these agencies, as pointed out earlier, is not in question. No one can quarrel with the recognition of a need and the intent to do something about it. Each agency, however, might be highly valuable and competent, and the sum total of effort ill applied to the problem because there existed no integrating factor.

That, specifically, is the criticism of many students of public health. The industrial system may affect the set-up in one place, the scarcity of population may do the same in another, and a high degree of civic consciousness among private citizens may do it in a third. There will naturally be some difference in pattern, but in any pattern there should be a correlation of activity and a unity of understanding and purpose behind the total efforts.

Public health endeavor has somehow escaped the ordering that has been a part of the evolutionary process of most public activities. The purpose of this discussion is not to reason why, not to tell how, but to present a situation. The situation, in brief, is that health is not given its rightful position among other problems of public importance, and its treatment is left largely to whatever chance may develop.



Cross section of model of gas absorption apparatus.

## A GAS ABSORPTION APPARATUS

By M. STARR NICHOLS, *Chief Chemist, Wisconsin State Laboratory of Hygiene, Madison, Wisconsin*

Intimate contact of a gas with a liquid is one of the important prerequisites of satisfactory absorption of the gas. In the device illustrated in the accompanying figure, the principle of the air lift pump is applied to gas absorption. The apparatus was originally devised to facilitate absorption of  $\text{CO}_2$  from an activated sludge experiment in the treatment of sewage by this process. In this process the ratio of the volume of air to the volume of  $\text{CO}_2$  is very great and simple bubbling through weak sodium hydroxide was not satisfactory.

The model illustrated here was designed to absorb  $\text{SO}_2$  from the air and was used with success by the Industrial Hygiene Division of the Wisconsin State Board of Health. In this use it is noted that 850 ml of the iodine absorption solution was placed in the 2-quart Mason jar and suction applied to the large central tube which led to the air pump used in collecting dust samples. This air pump was regulated to draw 1 cubic foot per minute through this  $\text{SO}_2$  absorption chamber. The application of suction to "A" causes  $\text{SO}_2$  bearing air to enter through the 5-mm tube "B" and jet into iodine solution through tip "C." This causes a turbulence in tube "D" with a concomitant rise of a rather intimate mixture of iodine solution and gas in this tube which gushes upward to top of tube "E" to cause further surface exposure and extended contact for absorption. The gas finally emerges from the bottom of tube "E" in large bubbles through the iodine solution. A second bottle in series with the first showed no passage of  $\text{SO}_2$  from the single absorption bottle. The apparatus is provided with a third opening through which iodine solution can be admitted.

With this apparatus large volumes of air can be tested in short periods of time, since a flow of air of 1 cubic foot per minute can be washed free of  $\text{SO}_2$ . For absorption of gases where the pressure is sufficient to cause the flow of air and solution through the apparatus (1 or 2 pounds), it may be operated without the closure at the top. In fact, tube "B" with jet "C," tube "D," and tube "E" to trap the geyser-like flow held in place by a rubber band may be used in an open beaker, cylinder, or large test tube when gas to be absorbed is under pressure.

*Acknowledgments.*—I wish to thank Dr. Paul Brehm, Dr. H. Ruf, and Mr. Wm. Fluck, of the Industrial Hygiene Division of the Wisconsin State Board of Health, for their assistance in the testing and development of this device.

## THE TENTH PAN AMERICAN SANITARY CONFERENCE

Bogotá, Colombia, September 4-18, 1938

According to an announcement by Surgeon General (Retired) Hugh S. Cumming, Director of the Pan American Sanitary Bureau, the Tenth Pan American Sanitary Conference will be held in Bogotá, Colombia, September 4-18, 1938.

Previous conferences have been held in Washington in 1902 and 1905; Mexico City, 1907; San Jose, Costa Rica, 1909-10; Santiago, Chile, 1911; Montevideo, Uruguay, 1920; Habana, Cuba, 1924; Lima, Peru, 1927; and, the latest, in Buenos Aires, Argentina, in November 1934.

It is expected that all of the American Republics will be represented at the Bogotá Conference as was the case in Buenos Aires.

The program of the Conference includes the following subjects:

### PROGRAM OF THE CONFERENCE

1. Campaign against venereal diseases: Modern trends and methods and objectives which should be followed. Organization of a Pan American campaign.
2. Human nutrition and alimentation: Report of the Committee on Nutrition designated by the Pan American Sanitary Bureau.
3. Social security in its medical and public health aspects: Reports of the countries in which it has been adopted.
4. Maritime and aerial sanitation from the standpoint of present international treaties.
5. Prenatal and infant hygiene: Progress since the Ninth Pan American Sanitary Conference.
6. Public health: (a) Centralization in a trained service; (b) composition, selection, promotion (including graded promotions), and guarantees of tenure of the national public health personnel.
7. Rural hygiene: (a) Water supply; (b) waste and excreta disposal (soil sanitation); (c) rural housing.
8. Control and prevention of yellow fever in its new aspects. Results obtained with the new vaccines.
9. Antiplague campaigns, especially in ports.
10. Latest achievements in the study of leprosy and modern organization of the campaign against the disease.
11. Tuberculosis: (a) Results of the campaign in each country; (b) coordination of work; (c) vaccination with BCG.
12. Typhus fever and related diseases in America.
13. Diseases produced by viruses.
14. Regional diseases: (a) Malaria—new methods in the antimalaria campaign; (b) goiter—prevalence and prevention; (c) amebiasis—prevalence; latest methods of diagnosis, prevention, and treatment.
15. Modern ideas and conceptions in the realm of preventive and curative vaccines and sera.
16. The problem of virus and germ carriers in epidemiology: (a) Procedure in tracing them; (b) prophylaxis and treatment of these carriers.

**DEATHS DURING WEEK ENDED MARCH 19, 1938**

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Mar. 19, 1938	Correspond- ing week, 1937
<b>Data from 86 large cities of the United States:</b>		
Total deaths.....	8,885	9,365
Average for 3 prior years.....	9,468	-----
Total deaths, first 11 weeks of year.....	98,427	114,088
Deaths under 1 year of age.....	544	580
Average for 3 prior years.....	606	-----
Deaths under 1 year of age, first 11 weeks of year.....	5,950	6,968
<b>Data from industrial insurance companies:</b>		
Policies in force.....	69,714,284	69,487,166
Number of death claims.....	13,368	15,230
Death claims per 1,000 policies in force, annual rate.....	10.0	11.4
Death claims per 1,000 policies, first 11 weeks of year, annual rate.....	10.1	11.6

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

In these and the following tables a zero (0) is to be interpreted to mean that no cases or deaths occurred, while leaders (.....) indicate that cases or deaths may have occurred although none were reported.

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Mar. 26, 1938, and Mar. 27, 1937*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937
<b>New England States:</b>								
Maine.....	2	3	13	13	299	15	0	3
New Hampshire.....	0	0	1	.....	11	47	0	0
Vermont.....	1	0	.....	.....	136	.....	0	0
Massachusetts.....	3	3	.....	.....	287	782	4	4
Rhode Island.....	0	0	.....	.....	2	386	1	0
Connecticut.....	5	8	5	16	34	573	0	1
<b>Middle Atlantic States:</b>								
New York.....	34	41	12	132	2,681	838	8	14
New Jersey.....	18	13	16	12	1,156	2,183	0	5
Pennsylvania.....	40	30	.....	.....	5,691	333	5	6
<b>East North Central States:</b>								
Ohio.....	22	16	.....	62	3,509	238	5	4
Indiana.....	26	12	18	92	1,322	84	2	4
Illinois.....	37	33	11	168	6,164	81	1	5
Michigan <sup>1</sup> .....	12	11	1	6	5,326	92	4	3
Wisconsin.....	5	6	30	103	5,002	32	0	1
<b>West North Central States:</b>								
Minnesota.....	3	4	1	3	120	59	0	4
Iowa.....	2	1	5	2	169	4	0	1
Missouri.....	21	12	71	192	974	27	2	3
North Dakota.....	0	0	6	6	66	.....	0	0
South Dakota.....	0	0	.....	.....	.....	2	0	0
Nebraska.....	1	1	1	.....	85	11	1	0
Kansas.....	3	11	16	11	434	19	0	1
<b>South Atlantic States:</b>								
Delaware.....	0	0	.....	.....	24	48	0	1
Maryland <sup>2</sup> .....	6	5	13	28	90	899	3	5
District of Columbia.....	6	14	1	1	18	114	1	2
Virginia.....	11	14	.....	.....	427	379	3	12
West Virginia.....	10	5	33	165	695	19	4	7
North Carolina <sup>3</sup> .....	20	12	5	191	3,115	134	1	5
South Carolina.....	6	3	314	812	499	32	1	0
Georgia <sup>4</sup> .....	12	10	.....	654	390	.....	1	1
Florida <sup>5</sup> .....	15	5	2	19	726	8	1	5

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Mar. 26, 1938, and Mar. 27, 1937—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937
<b>East South Central States:</b>								
Kentucky.....	17	8	24	70	548	151	1	29
Tennessee <sup>1</sup> .....	7	13	78	184	553	24	4	7
Alabama <sup>2</sup> .....	22	12	129	1,330	1,038	8	11	14
Mississippi <sup>3</sup> .....	6	2					0	0
<b>West South Central States:</b>								
Arkansas.....	8	5	99	349	340	1	3	3
Louisiana.....	8	19	20	132	9	7	2	0
Oklahoma <sup>4</sup> .....	7	3	108	168	86	48	1	2
Texas <sup>5</sup> .....	47	43	510	1,166	418	518	2	9
<b>Mountain States:</b>								
Montana.....	1	1		40	73	60	0	0
Idaho.....	1	0	14	2	1	25	0	0
Wyoming.....	0	0			33		1	0
Colorado <sup>6</sup> .....	11	3			576	5	0	0
New Mexico.....	10	1	1		116	54	0	2
Arizona.....	2	0	102	64	19	265	0	2
Utah <sup>7</sup> .....	2	0		1	329	20	0	0
<b>Pacific States:</b>								
Washington.....	1	1	16	2	9	28	0	4
Oregon.....	3	0	44	33	50	9	0	3
California.....	30	20	45	221	541	97	2	4
<b>Total.....</b>	<b>504</b>	<b>404</b>	<b>1,765</b>	<b>6,359</b>	<b>44,191</b>	<b>8,759</b>	<b>75</b>	<b>176</b>
<b>First 12 weeks of year.....</b>	<b>7,301<sup>8</sup></b>	<b>6,360</b>	<b>33,342</b>	<b>250,891</b>	<b>374,502</b>	<b>70,681</b>	<b>1,084</b>	<b>2,019</b>

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers		Whooping cough
	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938
<b>New England States:</b>									
Maine.....	0	0	17	34	0	0	2	2	52
New Hampshire.....	0	0	12	29	0	0	0	0	4
Vermont.....	0	0	20	10	0	0	0	0	30
Massachusetts.....	0	0	439	269	0	0	2	2	128
Rhode Island.....	0	0	37	60	0	0	1	1	25
Connecticut.....	0	0	117	167	0	0	1	1	75
<b>Middle Atlantic States:</b>									
New York.....	2	0	1,028	1,056	0	0	8	14	449
New Jersey.....	0	1	177	155	0	0	1	1	199
Pennsylvania.....	0	2	562	623	0	0	8	4	261
<b>East North Central States:</b>									
Ohio.....	1	4	434	339	18	3	2	2	223
Indiana.....	1	0	149	268	47	8	0	0	11
Illinois.....	3	3	592	779	53	63	10	3	114
Michigan <sup>1</sup> .....	0	0	538	891	12	20	2	2	269
Wisconsin.....	1	0	159	432	6	1	1	8	126
<b>West North Central States:</b>									
Minnesota.....	1	0	180	160	16	13	1	1	42
Iowa.....	2	1	224	327	43	33	2	1	27
Missouri.....	0	0	211	360	55	68	4	2	41
North Dakota.....	0	0	22	33	18	15	0	0	9
South Dakota.....	0	0	13	59	11	0	0	2	31
Nebraska.....	0	0	41	95	1	14	0	0	9
Kansas.....	0	0	135	415	22	23	0	1	150
<b>South Atlantic States:</b>									
Delaware.....	0	0	14	2	0	0	0	0	7
Maryland <sup>2</sup> .....	0	0	86	25	0	0	0	0	52
District of Columbia.....	0	0	28	14	0	0	0	0	6
Virginia.....	0	0	26	30	0	1	5	5	68
West Virginia.....	0	0	66	40	0	0	1	3	59

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Mar. 26, 1938, and Mar. 27, 1937—Continued

Division and State	Polio-myelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers		Whoop- ing cough
	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	Week ended Mar. 26, 1938	Week ended Mar. 27, 1937	
South Atlantic States—Con.									
North Carolina <sup>1</sup> .....	1	0	37	39	2	0	0	2	401
South Carolina.....	0	1	4	5	0	0	0	2	112
Georgia <sup>2</sup> .....	1	1	8	21	1	0	3	1	16
Florida.....	0	0	5	8	0	0	1	2	19
East South Central States:									
Kentucky.....	1	1	122	36	12	0	2	4	85
Tennessee <sup>4</sup> .....	0	0	29	25	10	0	6	2	62
Alabama <sup>5</sup> .....	1	2	11	16	4	0	5	2	40
Mississippi <sup>1</sup> .....	0	0	7	5	0	0	0	1	0
West South Central States:									
Arkansas.....	1	0	10	23	11	1	5	0	35
Louisiana.....	0	0	13	4	0	5	23	5	22
Oklahoma <sup>4</sup> .....	0	1	24	19	15	0	3	0	40
Texas <sup>2</sup> .....	1	1	126	83	14	7	15	9	342
Mountain States:									
Montana.....	0	0	16	36	10	37	0	0	16
Idaho.....	0	0	15	37	11	1	3	0	27
Wyoming.....	0	0	20	16	0	2	1	0	6
Colorado <sup>4</sup> .....	0	0	61	46	13	3	3	0	24
New Mexico.....	0	0	20	30	0	2	3	0	21
Arizona.....	0	0	8	18	10	0	7	1	50
Utah <sup>2</sup> .....	0	0	59	12	2	0	0	0	34
Pacific States:									
Washington.....	0	1	46	32	34	6	2	0	139
Oregon.....	0	1	49	31	33	23	0	2	20
California.....	0	0	202	186	24	8	3	1	485
Total.....	17	20	6,209	7,410	608	357	136	95	4,473
First 12 weeks of year.....	255	248	73,614	80,773	6,706	3,654	1,438	1,308	49,468

<sup>1</sup> New York City only.

<sup>2</sup> Period ended earlier than Saturday.

<sup>3</sup> Typhus fever, week ended Mar. 26, 1938, 9 cases as follows: North Carolina, 1; Georgia, 3; Alabama, 3; Texas, 2.

<sup>4</sup> Rocky Mountain spotted fever, week ended Mar. 26, 1938, 2 cases, as follows: Tennessee, 1; Colorado, 1.

<sup>5</sup> Figures for 1937 are exclusive of Oklahoma City and Tulsa.

<sup>6</sup> A corrected report gives the number of diphtheria cases in Florida for the week ended March 19 as 11 instead of 66, as published in the PUBLIC HEALTH REPORTS for April 1, 1938, p. 508.

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Meni- gococ- cus menin- gitis	Diph- theria	Influ- enza	Mala- ria	Meas- les	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>December 1937</i>										
Arizona.....	5	28	432	2	13	2	4	48	4	8
<i>February 1938</i>										
Hawaii Territory.....	0	17	20		135		2	6	12	7
Indiana.....	6	213	38		2,435			780	175	3
Kansas.....	2	29	44		1,549	2	0	890	100	4
Montana.....	3	5	126		98			123	61	1
Nevada.....	1	2	27		20		0	3	0	1
Oklahoma.....	7	46	991	21	286	16	2	171	86	7
South Dakota.....		3	20		4		0	95	38	2
Washington.....	4	11	35		56		2	262	175	2

<sup>1</sup> Off shipping.



## WEEKLY REPORTS FROM CITIES

City reports for week ended March 19, 1938

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
<b>Data for 90 cities:</b>	193	596	119	6,745	951	2,643	27	417	20	1,392	-----
5-year average...	123	122	48	16,878	758	1,866	29	360	37	1,111	-----
<b>Maine:</b>											
Portland.....	0	1	0	1	3	0	0	2	0	20	27
<b>New Hampshire:</b>											
Concord.....	0	0	0	1	0	1	0	0	0	0	9
Manchester.....	0	0	0	0	1	4	0	0	0	0	20
Nashua.....	0	0	0	0	0	0	0	0	0	0	7
<b>Vermont:</b>											
Barre.....	0	0	0	26	0	0	0	0	0	2	2
Burlington.....	0	0	0	2	0	0	0	0	0	2	10
Rutland.....	0	0	0	0	0	0	0	0	0	0	5
<b>Massachusetts:</b>											
Boston.....	0	0	0	206	27	88	0	6	0	26	233
Fall River.....	0	1	0	0	2	1	0	2	0	4	30
Springfield.....	0	0	0	7	5	1	0	0	0	19	44
Worcester.....	0	0	0	1	7	33	0	2	0	6	65
<b>Rhode Island:</b>											
Pawtucket.....	0	0	0	0	1	0	0	0	0	1	17
Providence.....	0	0	0	3	5	6	0	7	0	13	91
<b>Connecticut:</b>											
Bridgeport.....	1	0	0	0	6	18	0	1	0	2	38
Hartford.....	0	0	0	0	3	20	0	0	0	0	35
New Haven.....	0	1	0	2	4	4	0	1	0	8	47
<b>New York:</b>											
Buffalo.....	0	0	0	5	14	48	0	7	0	4	136
New York.....	28	10	3	1,277	173	438	0	68	3	184	1,696
Rochester.....	0	1	0	8	4	14	0	0	0	4	71
Syracuse.....	0	0	0	32	3	4	0	0	0	8	48
<b>New Jersey:</b>											
Camden.....	1	2	2	44	5	7	0	1	0	1	37
Newark.....	0	1	1	9	14	21	0	3	0	28	114
Trenton.....	0	0	0	2	5	8	0	0	0	0	41
<b>Pennsylvania:</b>											
Philadelphia.....	2	4	3	835	36	112	0	16	1	33	500
Pittsburgh.....	4	4	0	260	25	44	0	5	1	29	149
Reading.....	1	2	18	4	4	5	0	1	0	9	31
Scranton.....	0	0	0	55	0	13	0	0	0	4	-----
<b>Ohio:</b>											
Cincinnati.....	2	4	1	4	7	9	0	10	1	8	123
Cleveland.....	0	22	1	355	26	76	0	11	0	58	194
Columbus.....	4	1	1	197	5	7	0	1	0	2	68
Toledo.....	0	1	1	142	2	9	0	5	0	21	74
<b>Indiana:</b>											
Anderson.....	0	0	0	59	0	1	0	0	0	1	10
Fort Wayne.....	0	0	0	109	2	9	0	1	0	1	26
Indianapolis.....	6	0	0	272	13	34	2	5	0	6	102
South Bend.....	0	0	0	12	4	4	0	0	0	2	21
Terre Haute.....	0	0	0	29	0	2	0	0	0	0	17
<b>Illinois:</b>											
Alton.....	0	0	0	0	2	6	0	0	0	0	5
Chicago.....	7	3	0	3,275	43	237	0	28	1	41	697
Elgin.....	0	0	0	5	0	5	0	0	0	2	12
Moline.....	0	0	0	49	1	8	0	0	0	0	9
Springfield.....	0	0	0	222	4	2	0	1	0	4	28
<b>Michigan:</b>											
Detroit.....	3	1	0	3,195	20	138	0	19	1	68	294
Flint.....	0	0	0	4	3	59	0	1	0	13	19
Grand Rapids.....	0	0	0	48	1	15	0	0	0	2	30
<b>Wisconsin:</b>											
Kenosha.....	0	0	0	60	0	1	0	0	0	2	7
Milwaukee.....	2	0	0	3,471	7	12	0	4	0	36	97
Racine.....	0	0	0	50	0	9	0	0	0	10	16
Superior.....	0	0	0	5	1	4	1	0	0	4	9
<b>Minnesota:</b>											
Duluth.....	0	0	0	1	2	1	0	3	1	5	27
Minneapolis.....	0	0	0	34	1	27	2	2	0	4	91
St. Paul.....	0	0	1	1	7	8	0	3	0	3	75

City reports for week ended March 19, 1938—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
<b>Iowa:</b>											
Cedar Rapids	0			1		3	0		0	2	
Davenport	0			14		0	0		0	0	
Des Moines	0			13		31	0		0	2	35
Sioux City	0			0		3	0		0	2	
Waterloo	0			80		3	0		0	0	
<b>Missouri:</b>											
Kansas City	0	2	1	232	12	8	0	4	0	2	109
St. Joseph	0		1	65	3	0	0	0	0	0	27
St. Louis	5		0	16	7	103	6	12	0	0	184
<b>North Dakota:</b>											
Fargo	0		0	0	2	1	0	0	0	3	12
Grand Forks	0			13		0	0		0	0	
Minot	0		0	0	0	1	3	0	0	0	6
<b>South Dakota:</b>											
Aberdeen	0			0		1	0		0	1	
<b>Nebraska:</b>											
Omaha	0		0	11	10	2	1	6	0	0	70
<b>Kansas:</b>											
Lawrence	0		0	0	0	0	0	0	0	0	8
Topeka	0		0	74	0	1	0	0	0	26	13
Wichita	0		0	1	5	8	0	1	0	2	22
<b>Delaware:</b>											
Wilmington	3		0	20	5	3	0	2	0	3	33
<b>Maryland:</b>											
Baltimore	2	4	0	5	24	45	0	10	0	52	217
Cumberland	0	1	0	6	3	2	0	0	0	0	12
Frederick	0		0	0	0	0	0	0	0	0	6
Dist. of Col.: Washington	7	5	1	11	8	18	0	7	0	11	174
<b>Virginia:</b>											
Lynchburg	1		0	0	0	0	0	0	0	3	9
Norfolk	0		0	287	1	11	0	2	0	10	20
Richmond	0		2	45	3	4	0	1	0	0	44
Roanoke	1		0	0	1	2	0	2	0	3	19
<b>West Virginia:</b>											
Charleston	0		0	25	2	1	0	1	1	4	25
Huntington	1			6		2	0		0	0	
Wheeling	0	1	0	276	3	2	0	0	0	11	24
<b>North Carolina:</b>											
Gastonia	0			22		0	0		0	3	
Raleigh	0		0	87	3	0	0	0	0	23	15
Wilmington	0		0	254	2	0	0	0	0	13	18
Winston-Salem	0		0	13	1	0	0	1	0	62	12
<b>South Carolina:</b>											
Charleston	0	9	2	24	4	0	0	2	0	0	27
Florence	0		0	8	2	0	0	0	0	0	7
Greenville	0		0	4	0	1	0	0	0	14	8
<b>Georgia:</b>											
Atlanta	1	10	1	135	11	5	1	11	1	6	102
Brunswick	0		0	0	0	0	0	0	0	0	3
Savannah	0	9	1	104	1	0	0	0	0	4	26
<b>Florida:</b>											
Miami	0	1	1	168	5	0	0	1	0	6	44
Tampa	3		0	2	0	1	0	2	0	0	21
<b>Kentucky:</b>											
Ashland	0		0	4	5	0	0	2	0	3	21
Covington	0		0	2	0	0	0	0	0	1	14
Lexington	0		0	0	2	0	0	2	0	1	21
Louisville	6	2	0	208	7	88	0	3	0	6	69
<b>Tennessee:</b>											
Knoxville	0	1	1	46	7	3	0	1	0	2	33
Memphis	1		3	186	7	3	0	3	0	6	78
Nashville	1		1	122	4	5	0	3	0	11	56
<b>Alabama:</b>											
Birmingham	1	10	3	159	6	5	0	7	0	0	88
Mobile	0		1	35	2	0	0	1	0	0	24
Montgomery	0	1		116		1	0		0	4	
<b>Arkansas:</b>											
Fort Smith	0			6		0	0		0	1	
Little Rock	0		0	50	8	2	0	1	1	0	10
<b>Louisiana:</b>											
Lake Charles	0		0	0	0	0	0	0	0	0	5
New Orleans	4	1	6	2	21	4	0	8	17	16	164
Shreveport	0		0	3	11	3	0	3	2	0	51

## City reports for week ended March 19, 1938—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Oklahoma:											
Oklahoma City.....	1	-----	1	0	2	5	1	0	0	0	45
Tulsa.....	1	-----		41	-----	3	1	-----	0	2	-----
Texas:											
Dallas.....	2	2	1	4	7	14	0	2	1	2	77
Fort Worth.....	0	-----	0	0	0	2	1	3	0	3	33
Galveston.....	0	-----	0	0	4	0	0	1	0	0	17
Houston.....	1	2	0	0	8	3	0	4	1	0	81
San Antonio.....	0	-----	3	1	8	0	0	9	1	0	68
Montana:											
Billings.....	0	-----	0	0	0	0	0	0	0	0	8
Great Falls.....	0	-----	0	0	5	0	0	0	0	8	11
Helena.....	0	-----	0	0	0	2	0	0	0	2	3
Missoula.....	0	-----	0	1	1	0	0	0	0	0	4
Idaho:											
Boise.....	0	-----	0	0	0	0	4	0	0	0	9
Colorado:											
Colorado Springs.....	0	-----	0	1	3	3	0	2	0	0	10
Denver.....	4	-----	0	490	16	9	0	2	1	0	96
Pueblo.....	0	-----	1	3	4	3	0	0	0	4	11
New Mexico:											
Albuquerque.....	0	-----	0	3	2	5	0	0	0	0	4
Utah:											
Salt Lake City.....	0	-----	0	308	2	5	0	3	0	4	40
Washington:											
Seattle.....	0	-----	3	2	12	6	1	4	1	40	110
Spokane.....	0	1	1	1	4	1	1	1	0	8	37
Tacoma.....	0	-----	0	0	1	8	2	0	0	6	25
Oregon:											
Portland.....	1	10	1	7	7	23	2	3	0	3	97
Salem.....	0	1	-----	2	-----	0	0	0	0	0	-----
California:											
Los Angeles.....	16	13	0	22	17	42	8	22	0	36	326
Sacramento.....	4	-----	0	3	2	2	0	4	0	71	30
San Francisco.....	0	1	0	2	7	16	0	9	1	0	169

State and city	Meningococcus meningitis		Polio-myelitis cases	State and city	Meningococcus meningitis		Polio-myelitis cases
	Cases	Deaths			Cases	Deaths	
New York:				Florida:			
Buffalo.....	2	0	0	Miami.....	1	1	0
New York.....	0	1	2	Tennessee:			
Pennsylvania:				Nashville.....	1	0	0
Philadelphia.....	2	0	0	Alabama:			
Pittsburgh.....	1	0	0	Birmingham.....	5	2	0
Ohio:				Montgomery.....	0	0	1
Cincinnati.....	1	0	0	Texas:			
Cleveland.....	2	0	0	Houston.....	0	0	1
Illinois:				Colorado:			
Chicago.....	2	0	0	Denver.....	0	0	1
Michigan:				Washington:			
Detroit.....	1	0	0	Seattle.....	0	1	0
Missouri:				Tacoma.....	0	0	1
Kansas City.....	1	1	0	California:			
North Dakota:				Los Angeles.....	0	0	1
Grand Forks.....	1	1	0	Sacramento.....	0	1	0
Virginia:				San Francisco.....	1	0	0
Richmond.....	0	1	0				

*Encephalitis, epidemic or lethargic.*—Cases: New York, 3; Pittsburgh, 1; Kansas City, 2; St. Louis, 2.  
*Pellagra.*—Cases: Philadelphia, 1; Charleston, S. C., 1; Atlanta, 3; Savannah, 1; Birmingham, 1; San Antonio, 1; San Francisco, 1.

*Typhus fever.*—Cases: New Orleans, 1; Houston, 1.

## FOREIGN AND INSULAR

### CANADA

*Provinces—Communicable diseases—2 weeks ended February 26, 1938.*—During the 2 weeks ended February 26, 1938, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia <sup>1</sup>	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis				3	4			1		8
Chickenpox		15	14	374	577	101	34	18	282	1,415
Diphtheria		3	8	88	14	3	1	2	1	120
Dysentery					3					3
Erysipelas				22	1	3		3		33
Influenza		35			39	1			31	106
Lethargic encephalitis					2					2
Measles		119	5	268	517	32	40	100	120	1,201
Mumps		53			330	206	5	14	49	657
Paratyphoid fever					1					1
Pneumonia	4	24			56		3		23	110
Poliomyelitis				2	1			1		4
Scarlet fever		25	5	306	292	58	92	136	115	1,029
Smallpox							7	3		10
Trachoma									1	1
Tuberculosis	3	12	5	99	108	30		3	30	288
Typhoid fever		1	1	30	4	1			4	41
Undulant fever				1	3					4
Whooping cough		10		216	180	33	3	11	68	521

<sup>1</sup> Week ended Mar. 2, 1938.

*Vital statistics—Third quarter 1937.*—The Bureau of Statistics of the Dominion of Canada has published the following preliminary statistics for the third quarter of 1937. The rates are computed on an annual basis. There were 19.8 live births per 1,000 population during the third quarter of 1937 and 20.3 per 1,000 population during the third quarter of 1936. The death rate was 9.3 per 1,000 population for the third quarter of 1937 and 8.9 per 1,000 population for the third quarter of 1936. The infant mortality rate for the third quarter of 1937 was 80 per 1,000 live births and 56 per 1,000 live births for the third quarter of 1936. The maternal death rate was 4.0 per 1,000 live births for the third quarter of 1937 and 5.0 per 1,000 live births for the same quarter of 1936.

The accompanying tables give the numbers of births, deaths, and marriages by Provinces for the third quarter of 1937, and deaths from

certain causes in Canada for the third quarter of 1937 and the corresponding quarter of 1936.

*Number of births, deaths, and marriages, third quarter 1937*

Province	Live births	Deaths (exclusive of still-births)	Deaths under 1 year of age	Maternal deaths	Marriages
Canada <sup>1</sup> .....	55,373	25,924	4,434	222	27,179
Prince Edward Island.....	547	223	29	4	174
Nova Scotia.....	2,316	1,233	175	4	1,319
New Brunswick.....	2,621	1,406	383	9	1,235
Quebec.....	19,024	8,909	2,318	95	8,894
Ontario.....	15,968	8,588	822	71	9,006
Manitoba.....	3,492	1,353	183	10	1,627
Saskatchewan.....	4,830	1,383	230	10	1,476
Alberta.....	3,842	1,186	161	11	1,557
British Columbia.....	2,833	1,643	133	8	1,831

Cause of death	Canada <sup>1</sup> (third quarter)		Province, third quarter 1937								
	1936	1937	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Automobile accidents.....	494	579	3	25	32	151	280	28	16	24	40
Cancer.....	2,897	2,945	31	154	117	791	1,130	176	158	139	249
Diarrhea and enteritis.....	807	2,425	14	91	319	1,508	278	66	98	29	24
Diphtheria.....	49	86	-----	1	4	67	6	2	3	3	-----
Diseases of the arteries.....	2,028	2,039	16	126	65	387	1,005	128	96	86	130
Diseases of the heart.....	3,608	3,541	25	157	154	846	1,508	201	180	165	305
Homicides.....	25	26	-----	-----	-----	3	14	1	2	2	4
Influenza.....	227	243	3	11	8	79	79	12	23	15	13
Measles.....	53	106	-----	-----	1	41	6	1	17	22	18
Nephritis.....	1,404	1,387	25	50	43	657	396	56	58	34	68
Pneumonia.....	997	879	10	33	38	272	317	55	44	51	59
Pollomyelitis.....	36	135	-----	2	4	9	100	7	11	2	-----
Puerperal causes.....	280	222	4	4	9	95	71	10	10	11	8
Scarlet fever.....	41	38	-----	1	1	19	9	1	4	3	-----
Suicides.....	217	263	-----	7	9	46	87	28	26	27	33
Tuberculosis.....	1,624	1,552	20	113	88	670	317	95	54	82	113
Typhoid fever and paratyphoid fever.....	79	97	-----	4	11	47	15	3	12	2	3
Whooping cough.....	139	192	1	8	-----	116	26	14	8	13	6
Violent deaths.....	2,067	1,429	8	58	44	413	518	89	75	89	135

<sup>1</sup> Exclusive of Yukon and the Northwest Territories.

**CUBA**

*Habana—Communicable diseases—4 weeks ended March 12, 1938.—*

During the 4 weeks ended March 12, 1938, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria.....	17	1	Tuberculosis.....	9	2
Malaria.....	17	-----	Typhoid fever.....	199	12
Scarlet fever.....	2	-----			

<sup>1</sup> Includes imported cases.

**JAMAICA**

*Communicable diseases—4 weeks ended March 19, 1938.*—During the 4 weeks ended March 19, 1938, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis.....		2	Leprosy.....		4
Chickenpox.....	69	57	Poliomyelitis.....		1
Diphtheria.....	9	6	Puerperal sepsis.....		5
Dysentery (amoebic).....	7	3	Tuberculosis.....	36	81
Erysipelas.....		1	Typhoid fever.....	2	40

**YUGOSLAVIA**

*Communicable diseases—4 weeks ended February 27, 1938.*—During the 4 weeks ended February 27, 1938, certain communicable diseases were reported in Yugoslavia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	17		Paratyphoid fever.....	20	
Cerebrospinal meningitis.....	92	22	Poliomyelitis.....	2	
Diphtheria and croup.....	817	67	Scarlet fever.....	261	3
Dysentery.....	12	2	Sepsis.....	13	4
Erysipelas.....	184	8	Tetanus.....	18	6
Favus.....	11		Typhoid fever.....	379	50
Lethargic encephalitis.....	1	1	Typhus fever.....	118	10

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for March 25, 1938, pages 470-483. A similar cumulative table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

**Cholera**

*Indochina (French).*—During the week ended March 19, 1938, cholera was reported in French Indochina, as follows: Annam Province, 4 cases; Tonkin Province, 29 cases; Hanoi, 10 cases.

**Plague**

*United States—Washington.*—A report of plague-infected fleas and lice in Adams County, Wash., appears on page 544 of this issue of PUBLIC HEALTH REPORTS.

**Yellow Fever**

*Ivory Coast—Grand Bassam.*—During the week ended March 12, 1938, 2 fatal cases of yellow fever were reported in Grand Bassam, Ivory Coast.